

## **DEEP THINKERS**

Top-tier businesses are reaping huge rewards from data analytics
Here's what you might be missing.





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# HeadsU



## HP to Close the Book on OpenVMS in 2020

EWLETT-PACKARD PLANS to stop supporting the venerable operating system OpenVMS in 2020. Long valued for its reliability and renowned for breakthrough features, OpenVMS came into being in October 1977, when Digital Equipment Corp. started using the software, then known as VAX/VMS, to run its storied VAX minicomputers. The operating system is now part of HP's product lineup because DEC was acquired by Compaq in 1998, and HP purchased Compaq in 2002.

HP said it has about 2,500 unique customers running OpenVMS. But that only includes users with whom HP has a relationship. Others either support the 36-year-old operating system themselves or use third parties to keep it in shape.

The company said it will support OpenVMS on its Integrity i2 servers through the end of

2020, but that date isn't carved in stone HP will assess customer needs and could push the deadline back, said Lorraine Bartlett, vice president of marketing strategy and operations

for the vendor's Business Critical Systems unit The company will continue to sell OpenVMS on Itanium platforms running the Tukwila chip, but not on the newer Poulson chip

Users value OpenVMS for its security, reliability and clustering capabilities. However, "a slow but definite" migration away from OpenVMS

has begun, said consultant Stephen De Dalto, explaining that IT professionals have to justify their use of the operating system to higher-ups who say, "Move to Linux or Windows or Unix" without

knowing what such moves would involve. - Patrick Thibodeau AUTOMATION

## 20,000 Robots Are on the Job in

Foxconn Factories Hoping to save money on labor, China's Foxconn Technology Group could also be ushering in a new era of manufacturing as it sets its sites

on putting 1 million robots to work. The world's largest contract electrooirs maker already has 20,000 robotic machines on the job in its factories, and it's on track to hit its enal of creating a "million-mbot army," CEO Terry Gou said recently.

With wages on the rise in China, robots will help Foxconn save money, Gou said at the company's annual shareholder's meeting in Taiori. "We have over 1 million workers " he said. "In the future, we will add 1 million robotic workers\* and the humans will become technicians and engineers.

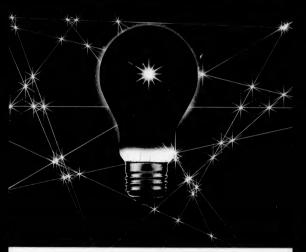
Foxcorn has spent three years creating robots, Gou said, but it will need more time to fully develop the technology, which will be used specitically for assembling devices such as mobile phones.

Robots have long been used to huild rars and hig electronic products. But people are still the best choice for assembling smaller gadgets, expects said.

Gou also said that Foxconn hopes to expand its U.S. manufacturing operations, if economic condi-

tions allow. The company currently employs thousands of people in Indianapolis and Houston, he said.

- MICHAEL KAN. IDG NEWS SERVICE How InterSystems invented an application platform that can enable integration and insights.



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BETWEEN THE LINES By John Klossner



#### TABLETS

## **Dual-OS Hybrids Create Challenges for IT**

ABSUNC'S UNCOMING ATTV Q convertible table is versatile. The 13-3 in. device runs two operating systems, Windows 3 and Android, and it can unfold to function as a laptop with a physical querty keyboard. But while that versatility may appeal to some users, it could confuse others, and it could create support and security beaduches for IT aboxs.

Of course, that's assuming that the ATIV Q, announced late last month in London, is able to gain traction in the market when it finally soes on sale in the U.S.

Dual-boot devices, like the Lenovo IdeaPad Us, haven's sold well, largely because they didn't shift smoothly from OS to OS, said Rob Enderle, an analyst at Enderle Group. Announced in 2010, the IdeaPad UI ran both Android and Windows 7, but Lenovo no longer sells it.

The ATIV Q is designed to switch instantly from Windows to Android, and that could prove to be a selling point.

But Enderle and other analysts said IT

Patrick Moorhead, an analyst at Moor Insights & Strategy, disagreed. Enterprises could essentially double their ROI by taking what they did on phones and moving that over to tablets," he said, though he did acknowledge that it's still unknown whether Knox will he effective.

shops will worry about Android security, even

with Samsung's Knox security approach, an-

nounced in February. "Enterprises are really

nervous about Android because it has become

such a huge malware problem," Enderle said.

But that could change "if you can assure that

the Android side of the ATTV Q is disabled

while inside of the company's firewall."

Forrester Research analyst G.P. Gownder said managing both operating systems in the ATIV O "could be quite a challenge."

Analysts agreed that, its versatility aside, the ATIV Q will appeal to some users because of its super-high 3200-x-1800-pixel resolution, the highest of any device with a 13.3-in. screen. Micro Burst

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\$16 billion
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## CORRECTION

## Updates to Best Places to Work in IT 2013

Due to a data-sorting error, we misreported certain rankings by organization size in the 2013 Best Places to Work in IT special report published in our June 17 Psue. The listing for top 10 small organizations those with feweir than 2,500 employees! was correct as printed. Here are the corrected top 10 lists for midsize and large organizations.

- Top 10 Midsize Organizatio (2,500 to 9,999 employees) 1. Ouicken Loans (Overall rank: 1)
- 2. Transocean (7) 3. Jet Propulsion Laboratory (16)
- 3. Jet Proputsion Laboratory (16)
  4. Applied Materials (17)
- 5. SAS Institute (24) 6. Principal Financial Group (27) 2. Cancer Treatment Centers of
- Cancer Treatment Centers of America (30)
   University of Notre Dame (35)
   Lack Henry & Associates (39)
- 10. Altria Client Services (41)

  Top 10 Large Organizations

#### Top 10 Large Organizations (10,000 or more employees)

- (10,000 or more employees) 1. USAA (Overali rank: 2)
- 2. Sharp HealthCare (6) 3. Qualcomm (8)
- 4. Genentech (9) 5. PricewaterhouseCoopers (10)
- 6. General Milis (12) 7. Erickson Living (13)
- 8. Verizon Wireless (15)
- 9. CSX (19) 10. Lehish Valley Health Network (20)

## Meet the game changer. Transform your IT infrastructure with IBM Flex System.

As IT moves from the back office to the center of driving business, technology needs to deliver faster results and be more innovative. It is time for a simpler, more open, flexible, and efficient infrastructure. It is time for IBM Fiex System."

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## Oracle Joins Rivals To Advance Cloud

Ending a bitter feud, the database vendor enters into a cloud-centric deal with Salesforce.com, and announces similar agreements with Microsoft and NetSuite. By Chris Kanaracus and Patrick Thibodeau

ARP RAISON AND MARK EMBORY, the CEOA of Oracles and Salesforce, come, respectively, paperently moded a long-standing and sumetimes bitter public rivally when they recently agreed to an inter-part deal under which their companies will integrate their technologies.

Announced lan month, the agreement calls for Salesforc com, long a user of Oracle's database, to standardure on Oracle's Limatoperating years milker of Oracle's database, to standardure on Oracle's Limatoperating years milker of Oracle's Passion human capital management (HCM) services and cloud based financial software. Oracle ultimage and the CAMP of Passion which the applications.

The key question now: Who gains the most — the Oracle and Salesforce.com marketing engines, or customers?

According to Ellison, it's the customers. The two companies will work closely to improve security and standardize links and thereby speed deployment, ensure the quality of the customer's integration and reduce downtime, he argued in a confer-

wanted more

ence call with reporters and analysts. The pre-integration work could cut deployment costs in half, Ellison said.

Gartner analyst Michael Mace discreted, saying the integration of Oracle and Salesforce.com products will help only a small percentage of users. He estimated that just 4% to 6% of the joint installed customer base, large users mostly, could benefit. The value that appropriate of Salesforce.com customers arent doing much integration to begin with." he said.

much integration to origin with, i.e. sain. Left unanswered is when the packaged integrated offerings will be available, and what the new working relationship will mean for Oracle's own customer relationhip management products. In the past, Ellison has eaid many Salesforce.com customers have "chucked" Salesforce.com CRM software in favor of Oracle's.

In the conference call, Ellison told reporters that "Salesforce.com and Oracle have some overlapping products, but

there are far more opportunities to work together than to compete. His tone was a departure from the days when he said Salesforce.com's platform was difficult for customers to migrate away from and described it as a "roach mobel" where "you can check in but you can't check out." The Salesforce.com deal came the same week

Oracle signed similar agreements with Microsoft and NetSuite.

Under the former deal, Oracle technology —

including the database, Iava and other products

— will play a more prominent role in Microsoft's
Azute cloud service. Oracle will also support Microsoft's Hyper-V virtualization software.

Oracle and Microsoft have worked amicably on

initiatives in the past, but "in the world of cloud computing that kind of behind-the-scenes collaboration is not enough," Microsoft CEO Seeve Ballmer said during a press conference. People wanted more from us. People wanted more from Oracle."

"People wanted more from us. People wanted more from Oracle." Oracle also agreed to integrate its own HCM cloud service with NetSuite's cloud-based ERP services.

Michael Fauscette, an analyst at IDC, said that agreement is a "really good thing" for NetSuite customers, in particular, because it gives them an Oracle software option. Underscoring all the agreements is the recognition that there's

a need for more support for and stronger integration of products used in cloud platforms, analysts said.

"It's a recognition on Oracle's part

that cloud-based software delivery is becoming a marketplace reality, and it needs to be actively engaged if it wants to gain the benefits of that market," said Charles King, an analyst at Pund-IT. Kanaracus is a reporter for the IDO News Service.

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## An IT Bucket Brigade Relives Hurricane Sandy

A new film recounts how a data center's customers and employees worked tirelessly to keep the facility running after last fall's big storm. By Patrick Thibodeau

HE IMPROBABLE TALE of a diesel-fuel backet brigade that kept a flooded Manhattan data center running in the wake of Hurricane Sandy is not retold with fondness by those who were involved, even if they do share a sense of pride in their

achievements and can now see humor in the schemes they devised as they desperately tried to respond to the storm that struck the East Coast in October 2012.

The participants recall the stench of diesel in dark statirwells, and the physical toil of carrying buckets of fuel up 170 a roofutop generator's fuel and after floodwaters shut down basement pumps. The abso remember selecting on floors, going without showers, and enduring the stress of knowing that failure could put the data

center operator out of business.

The story of the people who helped save Peer 1 Hosting's data center at 75 Broad St. is told in a documentary-style film that Peer 1 produced and first showed to a group of its customers and employees last month.

The thought of carrying fuel to the roof "seemed like a ridiculous idea," said Michael Pyror, president of Fog Creek Software, a major user of the data center and a member of the bucket brigade. "It didn't seem feasible." His initial idea was to pump fuel using

His initial loca was to pump ruer using equipment from a fish tank in his nearby office. When that suggestion was recounted in the film, the audience — and Pryor himself responded with healthy laughter.

But the fact that such ideas were on the table reveals the sense of urgency facing Peer 1 workers and customers as they struggled to find ways to make sure that a rooftop generator that burned 40 gallons of fuel an hour could keep the data center running.

could keep the data center running.

Data center employee Jeffery Burns recalled hearing a cascade of floodwaters in the
elevator shaft that eventually swamped the
basement and disabled the fuel pumps.

"Everybody in Manhattan had the same problem: how to relocate infrastructure that for 50 years had safely lived in basements," said Michael Mazzei, Peer I's data center manager.

Despite the hardships caused by Hurricane Sandy, data centers won't be leaving Manhatan, one of the most networked places in the world, anytime soon (see "Data Centers Under Water," page 33). Indeed, the building that houses Peer 1's systems is the former bacquaraters of international Telephone & Telegraph. It has multiple network connections that tel Peer 1 offer users quick access and low latency. It's also just a short walk from the waterfront.

For Fog Creek, and likely many other businesses in the area, the most significant impact of Hurricane Sandy may be its decision to devise stronger backup plans.

n to devise stronger backup plans.

In the months since the storm, the company has improved
its data replication capabilities and has
begun developing an ability to switch

begun developing an ability to switch operations to another facility in an emergency, it also shifted one tool to Amazon's cloud service, but that move had been planned prior to the storm.

Sandy made Fog Creek officials painfully aware of the fact that they hadn't paid enough attention to the likelihood that something had could happen — something like a massive storn. Said Pryor: "It did kick us in the butt and get us to fix a lot of things that were broken." •



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## Kathy Moore

This CIO is helping to launch a massive health information exchange.

> Family: Married. with four grown children

What accomplishment are you the most proud of? "I feel like I've helped a lot of others with their careers, and I feel good about that."

What's the best advice you'veever given to anyone? "Don't take it personally, it's just business."

And what's the best advice you've ever received? "Never go down with an issue." I got that from a college professor who used to be a state official who went down with an issue."



HE WEST VIRGINIA HEALTH INFORMATION NETWORK was created by the state of West Virginia and charged with building a secure electronic health information system so providers could access and exchange patient data. The goal is to improve the quality of patient information and thereby enable providers to more quickly offer better care at lower costs. Among those leading the effort is Kathy Moore, CIO of the network. Moore is now warking with hospitals and other healthcare providers in the state to get them connected to the exchange. "The exchange is now up and live, and we're focused on rollout and bringing on as many as possible," says Moore, a former deputy CTO for the state of West Virginia. Here she shares her thoughts on leading this huge IT project.

How do healthcare providers need to prepare for the new network? Technically [the electronic health records] need to be in one place, and organizationally [the providers] need to be ready, too. That's a big part of the onboarding process. You can connect up technically, but if you don't know how to use it, what data you want to contribute, how your employees are going to implement that, then you're not really ready.

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## THE GRILL | KATHY MOORE



It's amazing to me to think about how much of a difference [the health information exchange] can make in the future.

> What are the biggest challenges in building this syste Orchestrating everything. There are just so many players and so many factors. For example, for a single hospital to onboard, you've got a governance team, a technology team, a training team, patient notice, and support. Then there's our staff, the vendor, their staff, their policies, our polices, training and ongoing support. So getting all those moving parts working is a challenge. And there are so many different vendors selling [electronic health record systems] to doctors, so each one is a different connection.

is the technology side a higger challenge than the other parts of the project? I think they're equally impactful because it really is any one of those pieces that can cause the entire thing to not work well or not get adopted. On the technology side, everybody is hitting the market with [application options] at the same time without necessarily seeing what's ahead with some of the future requirements. A lot of people are offering the same services, so you have to be careful not to step on each other's toes in what you're trying to provide to the customer. We don't intend to, but sometimes it appears that way, because

me of the larger vendors are offering their own private lexchanges). What they end up doing is connecting anyone who has their product together.

Does that mean you have to sell your organization and its mission? Sometimes I feel like we get put in that position. It's more negotiating what makes sense to do: narticipating in this state exchange versus participating with the vendor. It looks sometimes to the customer like the same thing, and we have to sort it all out for them.

Do healthcare providers have to pay to be part of your group? Eventually they will. We will be developing our sustainability model. We have funding to last us approximately four more years, and our sustainability requirements aren't great because we're not a profit-making organization. But it will be one of our future challenges.

What are other challenges? Short term is developing that sustainability model, driving the value and managing the initiatives with limited resources. But longer term, it is consumer engagement. We have a patient portal, so there will be a point where patients could access their records, regardless of who contributed that information.

to the nationt portal active? It is active, but we haven't deployed it. We have a pilot coming up in the next few months. We expect that to be managed by the providers themselves, for them to give patients access. But we're hosting the application, and we have to develop the policies around the use of the patient portal and how the providers can provision and manage within that portal. Then patients would be able to access and see and download any information in there to their own personal health records.

What are the biggest opportunities around this initiative? It is really for improving access to information to healthcare providers so they can make decisions sooner with the right information, and they can improve outcomes and lower costs. To me, it's really hitting home because I'm having this type of experience. My father has [healthcare providers] coming to the home and they're asking the same questions. But if they had the information throug an exchange, they'd have those answers before they walk through the door. It's almost like they're working with blindfolds on. It's amazing to me to think about how much of a difference it can make in the future.

Are you seeing that difference now? We are. The stories are starting to come through. Yesterday we worked with a public health [official who was] able to access and validate information about a disease. It was a public health mandatory reportable disease. We were trying to see if the system had information valuable to her. In three minutes, she found information that before would have taken her three days to find.

- Inversely by Computerworld contributing writer Mary K. Pratt (marykpratt@verizon.net)

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# A CONSTANT STREAM OF DATA TURNS CONCEPTS INTO REALITY.

[POWERFUL ANSWERS]

## ADVANCING BUSINESS THROUGH

With the explosion of employee-owned devices in the workplace, IT departments are being asked to handle more devices, more applications and more data then ever. Such a massive influx of business data can capsize a network not equipped to handle a load this big. Today's on-the-go interactions require networks that are agile enough to securely and intelligently distribute vast amounts of data to devices, applications and machines without slowing down—both inside and outside of the enterprise.

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## **PRESTON GRALLA**

## Microsoft Has Derailed for Lack of an Engineer in Chief

The tech companies that have surged since Ballmer took over are headed by engineers.

FOPLE GIVE PLENTY OF REASONS for Microsoft's fall from the top of the tech heap. Two of the more common explanations are internal turf wars and the inevitable decline of a near monopoly that got fat and happy.

But I think there's something much simpler at work. It's been years since Microsoft has been run by an engineer. Bill Gates stopped working full time for Microsoft in 2006, and since then the company has been run by non-engineer Steve Ballmer, Before joining Microsoft, Ballmer worked as an assistant product manager for consumer products giant Procter & Gamble and spent a year in the MBA program at Stanford. That's not the set of job skills and background the CEO of a tech company needs today.

Take a look at the tech companies that have surged since Ballmer took over from Gates. Google is headed by engineers. True, people thought that founders Sergey Brin and Larry Page needed some adult supervision. But who stepped in to run the place? Eric Schmidt, a former director of software engineering at Sun.

Facebook is run by an engineer. Apple founders Steve Jobs and Steve Wozniak were engineers, and though Jobs couldn't rival Wozniak's prowess, he could code and build hardware, and he lived for overseeing product design. Tim Cook, the current CEO, has a degree in industrial engineering.

Why does all that matter?

Because in tech, the product rules. Products trump marketing, strategy and even smart management. What drives technology isn't dividing up an existing market. It's creating entirely new markets by developing products that people crave.

Google succeeded for a very simple reason: At launch, it was by far the best search engine on the planet. Facebook became a success because it was far more useful and "sticky" than any other

social media service. As for Apple, its history suggests that, while engineers can't always save a struggling tech company, a marketer has almost no chance. When lobs was forced out in the mid-1980s, the CEO was John Sculley, an MBA who had been, among other things, a vice president of marketing at Pepsi. Sculley's ouster was preceded by a misstep on the tech side - moving the Mac to the PowerPC chip. Although he was followed by two tech-oriented CEOs, it wasn't until Jobs returned that Apple took off again. The spate of new products Jobs developed was remarkable and spurred Apple's meteoric rise.

Engineers succeed as tech leaders because they live and breathe products and care about them in visceral ways that managers — even very good managers - don't. For people like Jobs, Mark Zuckerberg, Brin and Page, building products is a calling, not a job.

Not so for Steve Ballmer, Listen to him talk about products. He's robotic, his enthusiasm is artificial, and his message never strays from whatever marketing campaign has been designed for him. During the launch and early days of Windows Phone 7, he incessantly repeated that the new phone operating system would "delight" users. It was by far one of the most inauthentic, marketing-driven performances I have ever seen

lobs, Brin, Page and Zuckerberg never needed to gin up their enthusiasm for what they created. If Microsoft wants to get its mojo back, it should he looking for a leader who's similar to those four: an engineer who loves tech products, not someone who just sells them. •

Preston Gralla is a Computerworld.com contributing editor and the author of

more than 35 books. including How the Internet Works (Due. 2006). The world's most reliable enterprises rely on VMware virtualization.

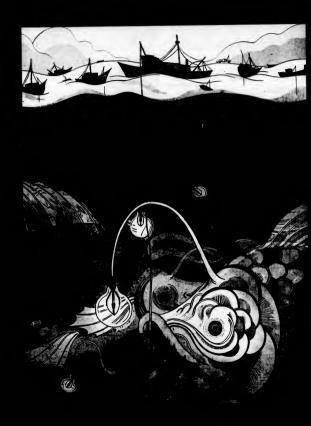
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These three toptier businesses are reaping huge rewards from data analytics. Here's what your company might be missing out on.

BY JULIA KING

## THINKERS

SIMPLY PUT, DATA IS THE LIFEBLOOD AT EXPRESS SCRIPTS, a \$44 billion pharmacy benefits management company based in St. Louis.

The Fortune 100 company processes close to 1.5 billion prescriptions for some 300 million consumers per year, all the while analyzing the wealth of information that accompanies each order.

"As we track a prescription through data entry and the pharmacy process and into the fulfillment system, we're tracking all sorts of information that gets fed to an analytics team that is focused on process improvement," says CTO Jim Lammers. Internally, it's how the company speeds delivery and cuts errors, he says.

## COVER STORY

But Express Scripts also processes more than 1 billion pharmacy insurance claims annually, and they represent a gold mine of information that could help cut healthcare costs and address the multibillion-dollar healthcare problem created by people who don't take their medications as prescribed, says Lammers.

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## THE WIN: Lower Healthcare Costs

At Express Scripts, claims data can show whether patients are filling their prescriptions in the most cost-effective way, which is frequently by mail order. If they aren't, Express Scripts can interced by providing the patient with additional cost information and offer to switch delivery fulfillment methods for them with a minimum of hassile.

"If they're taking a maintenance medication for high cholesterol and we know they're been taking it but they're been taking it from a retail pharmacy, we know if they move to a mail order, they can save, Lammers says. "We'll do proactive emails and drive the patient to our website and use specific messaging to get them to make [a mail order] decision."

ing to get them to make [a mail order] occision.

What it boils down to is "doing the data analysis, creating the interaction and getting out the right message so that the patient can make a different

choice," Lammers explairs. "One of the key tenets is that if we offer people the right choice, they'll take the right path."
It sounds easy, but behind the seemingly effortless redirection is

a massive amount of technology, not to mention a strict culture of analytics that permeates virtually all of Express Scripts' operations. One of the company's largest IT investments has been in IBM's master data management software, which is critical to creating a single record that connects all of a customer's actions, regardless of whether a transaction is made via email, on the Web, by phone or in person at a retail pharmacy.

"One of the biggest challenges is linking all information together across all these different sources," says Lammers. "We've made very heavy investments in master data management. We invested early on and we've been through two or three iterations."

Express Scripts also created what Lammers calls a federated analytics model that includes a business analytics team embedded in each key functional operation, such as supply chain, sales and finance. A single data warehouse and centralized data governance are two other keys to the company's analytics ascess, he says. "With a centralized core, everyone is looking at the same data," Lammers notes.



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JIM LAMMERS, CTO, EXPRESS SCRIPTS

With a proven data governance model and a data management foundation in place, Express Scripts recently expanded into predictive analytics, introducing an application called Screen Rx that's designed to reduce the problem of patient non-adherence to prescriptions for chronic conditions such as diabetes and high cholesterol. At a cost of more than \$3.yt billion annually, nonadherence is the most expensive healthcare-related problem in

the U.S., according to Express Scripts.

For example, shipping doses of a prescribed cholesterol medication might trigger heart attacks for some patients. Using predictive modeling based on ago factors, not a a patient's because the productive modeling based on ago factors, not a a patient's because the productive modeling and patient productive productive productive productive patients who are likely to ship doses. The productive produ

"This is really one of the key things we've been building to — to change behavior," says Lammers. He adds that striving to 68% lower TCO.\* An investment worth making.

## HP BladeSystem pays you back in just

The data center used to be a cost center. Not anymore. HP ProLiant Gen8 server blades solve the problem of costs and complexity with butt-in intelligence, integrated efficiencies, and ultrahigh availability—all in a blade that delivers TC0 that gets better and better every day.

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It starts with believing that you can change outcomes. - KIM STEVENSON, CIO, INTEL

foster healthy behaviors in patients is especially important in light of impending healthcare reform as millions of people gain access to consistent healthcare for the first time.

"We have to train them to take care of themselves," he says.
"When we can put Screen Rs into a population that hasn't had
consistent access to healthcare, we can get them to get the right
stuff right away."

## THE WIN: Fuel Savings and Better Driver Safety

Transportation and logistics glant UPS, which has annual revenue of \$54 billion, invests roughly \$1 billion per year in IT, and a very hefty portion of that is deveted to data analytics, according to han Perez, vice president of information services. The goal — for now is to improve business processes, cut costs and increase efficiency.

The effort has been a success. By analyzing a continuous stream of sensor data from its thousands of delivery trucks, the global company has eliminated 5.3 million miles from its routes, reduced engine idling time by almost 10 million minutes, saved 650,000 gallons of fuel and reduced its carbon emissions by more than 6.500 metric tons.

At the beart of these eye-popping metrics is ORION, which stands for On-Road Integrated Optimization and Navigation, a date-intensive system that lays out the most efficient routes for individual drivers to deliver their loads via a series of complex algorithms. Additionally, the system taps into the mountain of sensor data to predict when a truck part might fail so that preventive maintenance can be scheduled and completed.

ORION also lets UPS managers peer into the habits of individual drivers, pinpointing, for example, the number of times a driver backs up a truck or makes a U-turn. This information can be used to identify drivers who need additional training.

We have sensors that capture information about the vehicle and the driver's behaviors. We marry that information to delivery and acquisition information, and we can get a complete picture of how a driver is completing his work, day in and day out, "Perez says. That has incredible consequences for the way we manage the business across the board."

Now, the company's appetite for data is extending outward. Its goal is to get closer— much closer— to its millions of customers with another analytics-intensive service called UPS My Choice, which lets people set individual preferences for how they interact with the company.

Customers using the service can, among other things, give specific instructions about how and precisely where to deliver their packages to specific addresses, reroute packages if they change locations, and sign up to receive status alerts.

"What we've done is take a new approach to managing personal supply chains. Having that level of connectivity with our customers is going to change one basiness now and in the years to change one basiness now and in the years to what it enabling revenue growth, "asy Peez. In the first year to good the years of the property of the property of the years of

ered under its auspices.

Data about customers' delivery preferences helps UPS to continue to refine its internal processes in response to those preferences so we can build a one-to-one experience, Perez says.

But even more critical is the insight that the data provides into

what new products and services to offer.

All of the [tracking and delivery] notifications we provide and how customers respond to notifications tell us what they want

so we can create the products and services they want. It's a lot of data to define new products and services." The next step, as Perez sees it, is to tie everything together and create a graphic picture of UPS's various big data systems so

and create a graphic picture of UPS's various big data systems so the company can uncover new uses for the data — and thereby derive more business value from it. "It starts with process improvements, but once you start tying all of this together, it can mean very big changes in the business," Perez says. "That's what we're getting at."

### THE WIN: Millions in Added Sales

Traditional business intelligence is alive and well at Intel, but big data mining and predictive analytics are the forces driving design and manufacturing efficiencies, and uncovering new revenue sources that added up to tens of millions of dollars in 2012 alone.

"It starts with believing that you can change outcomes," asys CIO Kim Stevenson of the chip manufacturer's massive success with analytics. That, she says, requires less time spent on historical questions, which is the nurview of traditional BI.

and more focus on the future.

which is what predictive

analytics is all about.

Predicting the future at \$53 billion Intel requires analyzing massive amounts of data to discern patterns and then applying predictive algorithms to solve high-value business problems.

In 2012, for example, Intel IT created a new reseller sales tool that worked to increase the chip maker's revenue by enabling its sales team to identify, then strategically focus on. larger-volume resellers. The new software engine mines large sets of internal and external data, then applies a predictive algorithm to pinpoint the most promising resellers. So far, it has helped identify three times as many high-potential resellers in the Asia-Pacific region as manual methods typically would have uncovered, according to Stevenson. That translates to about \$20 million in poten-

tial new and incremental sales. More gains are expected as the tools are rolled out to other geographies.

On the manufacturing front, Intel is using a predictive analytics tool to reduce microprocessor testing time. The company saved about \$3 million in testing during a proof of concept period. By 2014, as the tool is implemented more widely, Sevenson expects it to rack us another \$20 million in savings companywide.

Intel's analytics success has been fast-tracked, to say the least.

The key, Stevenson says, is tackling big-money problems with relatively small and swift-acting teams.

"To get the business to focus on the future and ask better questions that would lead to better outcomes, we knew we would have to do things quickly," she explains. "We were coming out of a traditional BI environment where solving master data is the unsolvable problem. People work on it forever and the business doesn't necessarily see the value.

So Stevenson came up with the "six months and \$10 million" rule. "A \$10 million problem solved in six months is important. Any general manager would say they'd invest six months if we could

save them \$10 million," she says. (At Intel, business managers must support and fund IT projects.)

Stewmon recruited fineperson teams made up of a business expert, a statisticia a predictive modeler, a machine learning expert and a data scientist. "Each person on the term had a slightly different perspective on the problem we were trying to solve. Doing it in six months was our way of earning the right to prove the capability was there to really change the

In addition to the projects that reduced testing time and pinpointed lucrative resellers, 13 other analytics projects have been completed using that approach. So Stevenson has upped the ante by finding \$100 million problems and challenging teams to solve them.

"When you have a track record, you can ratchet up," she says. Other ongoing projects include a predictive engine for streamlining Intel's chip design and debugging process and another to predict new information security threats.

But Stevenson cautions enterprises not to under-

estimate the skills required for analytics initiatives and the time it may take to nurture those skills. "When I think about our learning curve with Hadoop and some

of the more advanced presentation layers that are very different from SAP or traditional BI, I'd emphasize that there is a learning curve there for technical skills that ten't insignificant," she warns. Her other piece of advice: "Develop an appetite for experimentation," especially since analytics technology is still evolving. "The winners and losers on the tech side are not completely shaken out yet," she says. "Keep your aperture wide." •





Forget new (and better) technologies — email is as entrenched in the business.

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## **Our Email Addiction**

26 COMPSTERWORLD JULY 15, 2013

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TOS CEO THIERRY BRETON caught a lot of flak last year when he announced he wanted his employees to give up email, but he may have been onto something. Kids these days don't use email

digital market research company comScore found that use of Webbased email dropped 31% among 12to 17-year-olds and 34% among 18- to 24-year-olds in the period between December 2010 and December 2011.

And consumers in general are also off email.

The Radicati Group, which tracks use of email and other messaging media, projects the number of consumer emails will decrease by 3% to 4% each year between 2012 and 2016 (see chart, below right).

Then again, there was a reason Breton came in for so much derision: Enterprise email isn't going anywhere. Or, more precisely, enterprise email usage isn't going anywhere but up. Radicati is projecting the number of business emails to increase by 13% every sinde year between now and 2016.

For businesspeople, that means more time scrolling through the inhox (not only on PCs and laptops but now on tablets and smartphones) clicking past newsletters, social media notifications and spam in search of the messages they truly need to do their jobs, and then later filine, archiving and nettice inter those messages.

For IT, that means more complaints from users about storage limits being too low (especially when Google letts them keep everything), as well as worries about security, archiving, retention, e-discovery, deletion and syncing mail between mobile devices. And then there's the cost: In 2010, Gartner estimated that the various cost stied to email add us to \$150, 20 er user per year.

Why do we subject ourselves to this madness? Because for all its aggravations, email works. "It's still an efficient way of communicating, almost in real time," says Phil Bertolini, ClO of Michigan's Oakland County, who's responsible for 10,000 email boxes.

"It does what it's designed to do quite well, which is allow us to securely communicate on a one-to-one or one-to-few basis," says Rob Koplowitz, an analyst at Forrester Research.

Simply put, we may hate email, but we can't work without it. But ClOs and messaging experts agree that something must change that if enterprise email volume is going to boom the way Radicati's numbers indicate. Email is going to have no get more sophisticated and, at the same time, easier to use. And the people doing the using, who often make life harder for themselves, need to evolve, too

## Why We Love Email

We love email because it's useful and ubiquitous. It keeps us connected and updated without requiring sender and recipients to he online at the same time, thanks to its asynchronous nature. Everyone doing business today can reasonably be expected to have an email address, whereas only some people use alternative tools like chat, videoconferencing or SMS texting.

Beyond that, email creates a de facto audit trail with a record of who sent what to whom when. And, barring space limitations, that trail is readily available on one's computer.

The result of this success? "Nobody can live without if for more than two minutes," says Sara Radicati, president and CEO of The Radicati Group

From Unix mail (h. 1972), IBM PROFS (b. 1981) and DEC All-In-1 (b. 1982) to email clients, integrated email (think Lotus Notes) and Web-based mail to today's cloud-based options, email has evolved because we have needed it.

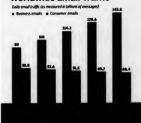
Bertolini is a big fan of email — since the public sector is a big fan of email — since the public sector is still heavily paper-based, email still counts as a big technological step forward. "We can chase new technologies, but I need something that's trusted and used by the masses. Even though there are people clamoring for newer ways to communicate, email is our main form of communication." he says.

#### Why We Hate Email

Unfortunately, email's positives — its utility and ubiquity — have become its negatives as well.

Consider this complaint: "It doesn't matter if the message comes from a spanmer hawking Vlagra, your wife aking you to pick up some wine, your boss telling the company that Monday is a holiday, or a client asking for a meeting at his office at 11 a.m. in today's inbouces, all email messages are equal." journaist Om Mailis wrote six years qoo, in 2007. If anything, the sixtation has only optent worse.

## Worldwide Email Traffic





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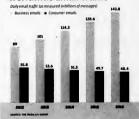
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#### ADDITIONS

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But typically these systems have failed to become as widespread as email because, while they offered a solution that may indeed have been superior to email, they did so only for a narrow population of users.

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## **Email's People Problem**

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But all those advances will be meaningless if people don't take advantage of the new functionality — and IT must help them do that.

"IT needs to explain how and when to use these features," says Radicati.

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- HOWARD BALDWIN

## [Employees] want to know why they're limited to 500 megabytes when Gmail is unlimited.

PETE KARDIASMENOS, SYSTEMS ARCHITECT, SBLI USA

And when a new communication tool like Yammer or Chatter does take hold throughout the enterprise, what happens? Users route their notifications to the one place they're most likely to see them first — the omnipresent email inbox.

#### IT's Email Burden

For IT. email is an ongoing headache. Niraj Jely, ClO at februred USA, the Newton, Mass-based U.S. division of a global developer of employee benefits and incentive solutions, cites a quartet of haseles: the sheer volume of messages; compliance and security concerns; the trisks that ares when users access corporate email on their personal devese, and international routing problems.

"No one can support ever-increasing mailbox sizes," he says. "At the same time, we have to ensure the safety and security of sensitive data being transmitted. We have to ensure the availability of emails archived by users on their laptops or desktops."

As a divisional CIO within a multinational reganization, lefty also says getting email from continent to continent is a challenge. "It gets very tricky when different government [regulations] and private sector contracts restrict email routing," he explains. For instance, certain Pay ment Card Industry Data Security Standard mandates require that emails originating in the U.S. sax in the U.S.

The bring-your-own-device trend also worries him. "If an organization needs encrypted email but also supports BVOD, supporting access to corporate email on personal devices becomes a newer-ending challenge," letly says. "And if a user loses a personal device, who has liability for the loss of data?"

Pete Kardiasmenos, a systems architect at SBL1 USA, manages the New York based insurance compamy's Exchange servers and gets involved with 'anything relating to email." His biggest issue: users turning to free external email systems, such as Yahoo Mail and Gmail, to circumvent corporate storage limits.

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Adam Glick, Microsoft's product manager for Exchange and Outlook, acknowledges that "you can change the tools, but you can't change the people." Citing one example of how the tools are changing, he notes that the current version of Office 2013 has an option that lets users ignore any email with a particular subject line if that thread has become irrelevant to the recipient. On a grander scale, Exchange and Outlook are becoming more of a communication hub, with greater integration of chat and unified unications, Glick says,

But all those advances will be meaningless if people don't take advantage of the new functionality - and IT must help them do that. "IT needs to explain how and when to use these features," says Radicati,

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## to know ſEr

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They don't have bad intentions. They want to know why they're limited to 500 megabytes when Gmail is unlimited. It's because the more space you have, the more time backup takes, the more complicated disaster recovery is. We have to constantly communicate our policies," he says. Like a lot of big enterprises, SBLI USA has had to block access to public email systems from company-owned computers as a security measure, and it has had to limit space in Exchange for most users because of the cost of storage.

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## Over the next few years, we'll see greater integration across [messaging] tools.

ROB KOPLOWITZ, ANALYST, FORRESTER RESEARCH

People keep email in their inbox the same way they keen files on their desktop, to keep them handy. They send the same file back and forth as an attachment until you have 10 versions that you have to store."

For Oakland County's Bertolini, management is the challenge - managing passwords, and managing Outlook's .pst backup files when they get too big. At least he says when those files get too large, they start to generate error messages, "We find out about it when lusers) have a problem," Bertolini says with a sigh.

In one case, we discovered thousands of emails dating back to 2001." Bertolini recalls. "And the real problem is that most of them dealt with trivia like meeting for lunch. There's a cost to maintaining and managing email over time.

IT's bippest email-related burden is simply uptime, says Radicati. "The overriding concern for IT is making sure that it's up and running and available," she says.

#### **Email in the Cloud**

So what's IT supposed to do? Certainly, the cloud offers one of several ways to view email differently. Radicati is optimistic about email in the cloud. "It's absolutely the way to go," she says. "A lot of cloudbased email providers have archiving and compliance capabilities in place, and if you want more features, you can purchase them as an additional capability."

In Oakland County, Bertolini is investigating

using Microsoft Office 365 in the cloud. "There's still a cost associated with storage, but part of our ROI analysis will be comparing the cost of storage in the cloud versus letting people keep more email," he says, adding that he's worried that if "you give them more storage, they will fill it up.

But he also sees other advantages, "If I can host email externally and still have the safety and security the county government needs, I can save millions in the long term. We'd need two to three people to manage Microsoft Exchange, but if I go to the cloud, I don't need those people. And in three or four years, I'm not replacing my mail servers.

Still, questions remain. "A lot of IT departments are investigating moving email to the cloud." Radicati says, "but there is still concern about whether it will be private enough, secure enough and reliable enough."

## **Merging Communications Tools**

Like many systems IT has to deal with, email's boundaries are expanding, which means IT needs to begin thinking about email less as a silo and more as one component of a multimodal communications system.

Bertolini notes that the new generation of employees clamors for instant messaging - and he's not against it. They use it to collaborate. When they have chat, they can get things done in real time." He's also looking at more videoconferencing, first on a one-to-one basis from desktop to desktop, and then from conference room to conference room, and then into a multipoint video arraignment system for the public safety team, because it saves having to transport the county's prisoners among facilities

Fortunately, these communication mechanisms will start to merge, analysts predict. Two to five years from now email won't look tremendously different. but we won't talk about it as a stand-alone tool as much as we do today, says Radicati. Instead, we'll have a communications dashboard that includes email, instant messaging and social media

These hubs will come about thanks to new open APIs, not only for social media applications like Facebook and LinkedIn, but also for unified communications protocols like Session Initiation Protocol (SIP) and Extensible Messaging and Presence Protocol (XMPP). Forrester's Koplowitz concurs. "Over the next few

years, we'll see greater integration across these tools. Think about how messaging is integrated into Gmail - you don't have to switch back and forth because they're all integrated together." he says, citing similar functionality in systems from IBM (with Connections and Notes). Microsoft (with SharePoint and Vammer) and Facebook

'We'll have a new environment with new aspects of communication," Koplowitz predicts. "Today they're different tools, but in the next three to five years, they'll be integrated." •

A Silicon Valley-based freelance writer. Baldwin is a frequent Computerworld contributor.





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## DATA CENTERS UNDER WATER

Climate change is causing some IT leaders to consider relocating, or at least hardening, their facilities, by ARIELLE EMMETT IVEN THE DREW WARRINGS about climate change, some bastness basters and IT professional are producing this genetics: How should data center managers handle the crop of so-called too- and even spo-year tooms, constal floods and other cooksical disasters that climatelegists predict are heading our way? In the contraction of the contraction of the contraction of the observers say data centers need to be moved to higher ground, and a third group advised safe center managers to pursue both strategies.

# Discussion Underway

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#### DATA CENTERS

One thing is certain, experts say: Few IT organizations — even those that suffered in narrowly escaped damage during recent naior storms — are thinking long term. Most IT leaders are, if arvthing, taking the path of least resistance and least expense.

For instance, the response to Hurricane Sandy, on the East Coast at least, "is nothing more than hardening existing data centers," says Peer Sacco, founder and president of PTS Data Center Solutions, a data center design and management consultance in Franklin Lakes, N.J. On the other hand, be says, the fact that most complete are networked these days de-emphasizes

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The company has announced that it's building a new data center in Secaucus, N.J. — norside the flood plain. "We take climate change very seriously, and it does factor into our new site selection." Orchard says.

Hurricanes Katrina and Rita in 2005, followed by Gustav and like (2008) and Issac (2012). Sammed into the Gulf Coast with such berecity that IT evecutives at Entergy. a 5to billion electrical power compairs with 15,000 employees, abandoned the idea of a single data center in the New Ciferian area.

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#### Ignorance Isn't Bliss

"What was perceived as a safe area before may not be now," says Rakesh Kumar, a data center and infrastructure analyst at Gartner. He cites freezing temperatures, costaal flooding and other unpredictable weather events in Europe, and notes that tsunamis are a concern in Asia. "Until we have a maper data outage, though, most clients are not calcilating for jick or change; they te turning a

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Even now, months after Sandy, most East Coast-based companies aren't taking steps to relocate their data centers, experts say. They're expanding in the same locations, they're not even thinking about moving," says Nell Sheeham, a data center architect and principal of Sheehan Patrirers, a Chikage-based architecture firm.

In fact, he says, "we are looking for expansion for our clients in New Jersey right near the coast, [near] sites that flooded." Sheehan says with proper surveys of 500-year-flood levels, data center architects can determine the ideal

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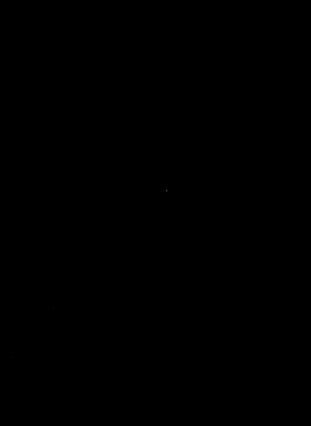
Some are doing more than paying lip service to the idea of preparing for disaster. In lower Manhattan, at 140 West St., a Verizon switching center left the full force of Sandy's flooding. Five sub-basement levels, including a Verizon cable vault, were submerged. Technicians struggled to mount emergency generators and pump water out through clevator shafts.

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#### DATA CENTERS

wireless, wireless IP and cloud computing solutions, to allow their employees to work remotely. Others are rerouting their telecom and data networks. "We even have some buildings that landlords have to redo, converting them from business locations to residences and deploying wireless services," says Kimm.

Even given all the damage, however, Verizon isn't considering moving its switching centers to a less flood-prone location. Instead, Kimm says, "we're armoring the buildings, we've done an evaluation of what all the risks are," he says. "We haven't gotten final solutions, but . . . you've got until [hurricane season starts in] midsummer before you have a significant risk of a future event."

#### Lessons Learned?

The impact of climate change and storms like Katrina and Sandy remains difficult to calculate. Not even climatologists can predict the frequency of extreme weather events as ocean levels and temperatures rise. But in the U.S., places such as Manhattan. Long Island, New Jersey, Miami, Virginia

Beach, Boston, Washington, D.C., and even Seattle and San Diego are expected to see increased coastal flooding.

"I think it's absolutely compelling to look at the impact of recent storms, and also to look at statistics that show there have been more natural [severe] weather events, whether that's related to global climate shifts or other factors," says Jim Grogan, a business continuity and resilience analyst at 451 Research

"Every single event, though, leaves lessons to be learned," be says, "Lessons come from the stories of the creative and innovative things data center operators did to keep their centers" going even in the worst conditions.

Though Sandy may have been a wake-up call for major data centers in the New York area to take some steps to harden facilities, it remains unclear how many will act on longer-term solutions - moving out of the city entirely, for example, or developing redundant and geographically separate facilities, or opting for third-party disaster recovery and cloud solutions

Some larger IT organizations are looking at alternative locations for data center operations, says Grogan. "Multi-tenant data center operators in Atlanta, Virginia and other locations [are] seeing an increase of interest from customers in the Northeast," he says.

Many businesses that can afford disaster recovery solutions are considering turning to companies such as Cervalis for hosted systems in secure multi-tenant facilities outside major cities. An IT infrastructure provider with more than 200 large corporate clients, including global banks and software companies, Cervalis has hundreds of thousands of square feet of multi-tenant space in upstate New York, Passaic County, N.J., and Fairfield County, Conn., all a safe distance from floodplains

Cervalis provides secured cabinets and redundant power, fully loaded (20 to 40 servers per cabinet), for about \$1,500 per month per cabinet. Customers can use its facilities as either primary or secondary data centers, and the price is still cheaper than building redundant facilities on their own, says Zack Margolis, vice president of sales, marketing and business development at Cervalis.

Of course, not all businesses can afford that level of protection, and some small operations might not recognize the importance of data backups. But most organizations will have to find cost-effective means of ensuring business continuity, such as virtualized clouds or backup tapes mounted at small disaster recovery facilities.

Moreover, many businesses still cling to major cities. "Manhattan will still be in high demand because it is an interconnection hub to the United States," says Michael Levy, a data center colocation analyst at 451 Research. Further, financial companies still want to "touch their data" and have it near the center of trading action because they're concerned about latency, even though that's not an issue with fiber-connected facilities, even if they're in remote locations.



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Overall, Kumar insists, too few IT leaders are taking the signs of weather and climate change seriously enough. "We have had cases of coastal [flooding] where climate change has become an issue," he says. "In London and Germany, the winters seem to be getting slightly worse; we've had cases of component failure small bits of electrical equipment freezing up.

Despite all of that, most IT managers still aren't willing to make proactive risk assessments to avert disasters. "When I ention risk assessments, [Gartner clients] say, 'Great point, we'll get engineering to complete a report," says Kumar. "But two months later, it's still at the bottom of the to-do pile." . Emmett is a professor of journalism and runs a technology-focused editorial and design company, Arielle Emmett & Associates, in New York, Pennsylvania and Beijing.

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### **Firewall Audit Gets Prioritized**

COMPREMENSIVE AUDIT of our frewalls just moved up on my first of prortners. The ungests varies from a recent of the property o

vear, but now we're planning to do it much sooner. Last week, while troubleshooting a problem with network

performance at a large overseas office, our network team decided to monitor the traffic leaving the office. Bad news: The firewall and router logs showed a massive amount of traffic destined for a single host in Vietnam.

The traffic originated from hundreds of externally addressable IP addresses on our internal network. This was highly suspicious, since we use internal private IP addresses for our protected network. Lassembled our crisis action team.

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computerworld.com/ blogs/security We tracked down the affected device by locating the switch port it was connected to. It turned out to be an

enterprise-class server that an R&D engineer had attached to the Eiberteric port at his desk—which is a no-no. We used administrative access to install EicCase, a forerise caministion tool, on that severa and hourd something consistent with malware that was previously detrittled as upening connections to a server in Viernam from multiple spoofed IP addresses. That a unp the facts for our case!

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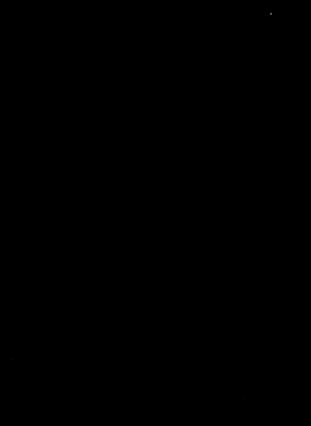
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Preventing Future incidents

With the damage contained, I drew up list of action items. For one thing it's apparent that we need to review our firewalls to ensure that basic configuration settings such as antispoofing and anti-DDoS are enabled. But Lalso want to look into why our security incident event monitoring (SIEM) tool didn't alert us that a server was communicating with a known malicious host. The incident also makes clear that we need to address some inconsistencies in our endpoint protection compliance, since the infected servers were not up to date with the latest pattern files. Finally, we recently enabled some advanced malware detection capabilities that are supposed to evaluate all downloaded executable files and run them in a sandbox environment to determine whether they are malicious in nature. I'd like to find out where the breakdown in that technology occurred.

But my No. 1 priority is that firewall audit. I'm sure that in suddiction to some basic interface configurations, there are gaps in the firewall rules base. • Thu sevek is journal is written by a real searnty manage? "Mathias Thurman," whose mane and employer have been disquised for theirs reasons. Contact hum or mathias, shurman@yubos.com.





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As soon as we disabled the malicious service, the malicious traffic went away.

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## BART PERKINS

# Unresponsive Suppliers Might Not Be That Into You

You can do some things to make your organization more attractive to suppliers. OU WOULD THINK that in tough economic times, it would be easy to hire a supplier of almost any IT product or service. And if your enterprise is a name-brand behemoth, it probably is easy. But smaller fish can't always get suppliers to provide product information. re-

spond to an RFI/RFP or deliver adequate support. You can do some things, however, to make your organization more attractive to suppliers. Here are some ways to get the attention you deserve:

u Clarify objectives. Confusing requirements take time to decipher and open the door to suppliers making assumptions. Some won't respond. reasoning that every assumption adds risk and that competitors with current contracts already understand your environment and need to make fewer assumptions. And proposals based on incorrect assumptions won't address actual needs.

m Make the RFI/RFP process easier. While formal RFI/RFP processes increase the likelihood that supplier selection will be based on merit rather than collusion between buyer and supplier, extremely rigid purchasing processes can make things difficult. Find a good balance.

A year after issuing an RFP for an ERP system, one organization concluded that all the responses were too expensive and therefore decided to relax some requirements and broaden its search. Unfortunately, its procurement rules barred employees from speaking directly to potential suppliers. and the selection team had to find out things like which languages products supported through websites and third parties. An already slow process got slower, and everyone was frustrated.

An overly structured RFP template can also be trouble. A government agency released a 68-page RFP. The problem statement took two pages, and the RFP contained regulatory information, forms, templates and affidavits to be completed. Result: Many qualified suppliers didn't respond at all, and most of those that did failed to describe how they would address the agency's needs.

a Actually award contracts. Some organizations release multiple RFIs/RFPs but rarely award contracts. Over time, suppliers drop away, convinced that they will spend a lot of time preparing

a response with no possibility of winning business. - Pay a fair price. Nobody wants to overpay. but squeezing suppliers until they can't make a profit is bad business. At worst, they could go out of business, leaving an unsupported product. More typically, requests for additional services at no additional cost result in support cutbacks. Since many IT products are complex and require significant after sale support, poor supplier service

can harm your ability to fully utilize the product. u Know your weight class. Large suppliers target large organizations that have big budgets and name recognition. Smaller organizations that hire major suppliers often find they don't receive the attention they expect. A smaller supplier that's hungry for your business is often more responsive.

I know of one midsize company that outsourced its data center to a large, well-known supplier. After repeated service problems, one of the supplier's executives admitted that its best staffers were reserved for its largest clients

In the end, if you aren't a Fortune 500 company, your best bet may be to go with a smaller vendor. Sure, it's easy to get approval to hire a houhold name, but a second-tier supplier may be able to dedicate more resources to you. You'll be impressed how well things can go with a supplier that's as invested in your success as you are. .

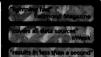
Bart Perkins is managing partner at Louisville Kvbased Leverage Partners, which helps organizations invest well in IT. Contact him at BartPerkins@ LeveragePartners.com.



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# ree Vatch

## **GRADS:** A Splash of Cold Water



IRING PROJECTIONS for new oraduates are down (see below), and those grads who do get interviews need to focus on the basics. According to HR con-

sultane firm Arteron, 34% of the 500 manage ers it survived said that the inability to directly and clearly answer questions and articulate skills and experience during an interview was a common reason not to hire people between the ages of 18 and 24. Big mistakes that respondents have seen

this group make during interviews include: Checking their phones or

- Not dressing appropriately (50%) texting (30%) Showing up late or on
  - m Fidgeting (26%) Exhibiting poor posture (22%)

the wrong day (44%)

Failing to make eye contact (33%)

hiring of new college graduates in 2013 to increase 2.1% compared with a year earlier. Just last fall, they were projecting a 13% increase this year.

SO JOTE METIONAL ASSET BYON OF COLLEGES AND EMPLOYERS FOR OUTLOOK SOME OF TERMINAL MEMBERS TERMINAL MEMBERS

average salary for newly graduated computer science majors has climbed 4.3% from a year earlier, to \$59,977.

SCHOOL MACE SAPPL 201 ALLERY SURVEY BASED OF A COMPLIATION OF DATA TROWING US BURBLAY OF LABOR STATISTICS

of hiring managers who say they don't believe that new college graduates are prepared for the workforce.

SQUECE ADSCCO MAY TO SOME TELEPHONE SURVEY OF SOO HIRING WANAGERS WARCH 2003

ASK A DREMIER 100 IT LEADER

The ClOm West Georgia Health answers questions about major issues facing IT in

the comme year, and more what major issues should IT departments be planning to address in the coming year? I see three - and iT should not

just be planning to address them this year, but probably should already have a strategy in place for each. The first is mobile device integration. How does the use of mobile devices impact the way your users access their applicanons? Do you have a position on BYOD (bring-your-own-device policies/? Do you offer your software via a downloadable mobile application? End users are more and more sayvy and wish to use one device to cover both personal and business computing

needs. Does your organization promote or prohibit this? The second is cloud computing. Most organizations are using some type of cloud system, either private, public or hybrid of some type. Does your cloud infrastructure best support the needs of your organization? Are you exposing confidential, proprietary information by hosting it in a public cloud? Conversely, are you paying too much for a private cloud infrastructure to house data that could be kept with a public host?

Finally, business development, Are you leveraging your technology to bring new opportunities to your organization? IT should not only be aligned with organizational goals, but should also be a key player in developing new and emerging strategies for your organization.

If you have a question it to askaleader@ and watch for this

I've been a software engineer for a few years now but wonder which path is more promising: analyst or developer? I believe that both paths have ample room for career advancement, However, I would argue that an individual with a combination of both talent pools will have the inside track. New applications are

being developed all the time, particularly in the mobile environment. A good analyst knows how to translate and communicate the needs of the customer. Someone with development skills can take those needs and create applications that benefit the business. Someone who has skills in both arenas can help remove harners and move projects forward quickly.

I have just earned a BS in computer science and am eager to put it to use. So far, the offers I've received are lowpaying and otherwise uninteresting. Is this normal? I would concurage you to look for concreteness in a growing business. one that's in its early to middle life. Seek to partner your technical skills with business expertise. Most organizations are looking for someone who can help the organization grow. Technical skills are often outsourced to offshore resources. It's those "extra"

skills that make you truly valuable to your company.



# Caree Watch

**GRADS:** A Splash of Cold Water



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ASK A PREMIER 100 IT LEADER

Sonya Christian

The CIO at West Georgia Health answers questions about the major issues facing IT in the coming year, and more.

t major issues should IT departments be planning to address in the coming year? I see three - and IT should not just be planning to address them this year, but probably should already have a strategy in place for each.

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TRUE TALES OF IT LIFE AS TOLD TO SHARKY



had occurred. Her response: "Look around you. My office is totally dark" Fish hits the light switch, and the overhead lights come on. "I don't use those," says user, "but everything is dead on my desk." Fish looks under the desk and finds the culorit: an overloaded power

strip into which she had just plugged a new space heater. "After unplugging the heater, I reset the strip and told her to have a nice day."

#### The Personal Touch It's the mid-1990s, and this pilot fish works for

a big bank that's getting bigger in the era of megamergers, "To do all of the loan documents at the local branches, the bank had chosen a very nice DOS-based product from a cmall wandor \* says fish. "The vendor was delighted, and everyone there did their best to make everything work for this huge client. They added staff and bein desk and went to 24/7 support, but they still had that smallbusiness feel. One time in the middle of a huge merger, I was testing the product against the legal requirements of the several states being added to the system. I navigated off a screen and got this error message: This shouldn't happen, call lan. We chuckled and I called vendor support: 'Hi, is tan there?' The immediate resonnse was, 'Oh, GHESHA!' but darned if they didn't get lan on the phone to get it fixed - which he did."

29 This should happen: Send Sharky your true tale of IT life at sharky@computerworld.com, You'll pet a ctylish Shark shirt if I use it.

Actually, It's That Guy Behind You

User in a manufacturing plant just doesn't trust computers or the IT department — or management, for that matter. "She was comminded we were monitoring her every move." Says IT manager prior fich, 'I med many times for reassure her that IT had neither the time nor the interest to keep an eye on 350 employees." Her steadfasties became spicified when IT gave her a screen capture tool whose fish common located down by the communer foot, was a set of bisocular. She hot of the fish the common state of the state of the

that she knew for sure she was being watched now, since those binoculars were looking up at her and recording every move she made!

#### False Alarm

Call comes in from a frantic user: The power is out at the corporate data center's backup site. "I informed my supervisor of the situation, noting that none of our alerts had signaled any kind of power loss or interruption," say a pilet fish on the sceen. "He immediately sent me to the site, when I arrived, I saw that lights were working on the exterior of the busiding and in team halways; I then checked our UPS system and the maintriam are also only to find no errors or alarms or alar indication that there had been any linited power interruption." Fish heads to the caller's office and ads her eractly where and when the power loss.

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## THORNTON A. MAY

## Why Does IT Want to Be a 'Device Santa Claus'?

Must IT be 'the store' that all departments come to for their digital kits? 5 A FUTURIST, I pay attention to what people pay attention to. As an anthropologist, I listen to the stories people are telling and are being told. As a Computerworld opinion columnist, I am fascinated by the inverse: What aren't we paying attention to, and what stories

are not being told? Right now, the essentially unremarked blind spot of the IT industry is that the way we buy technology has changed — right down to the question of who does the buying.

Our industry is obsessed with the next big thing, it is what subterpition research firms get paid big money for. It is what vendor diske decks are studied fulled. "What are we burying more?" and "What should we be buying next?" form the AIIM Executive Leadership Consoli recently conevered in London, it examined the hypothesis that the questions of who buys and how they have bevocated in London, it examined the hypothesis that the questions of who buys and how they have have been also that the contract of the conlaining the feature of IT. Our conclusions we have IT haying behavior deserve much more rigorous management attention.

Meanwhile, at the IT Leadership Academy, we asked a group of IT executives to think about the history and the future of IT purchase behaviors.

Trial eden (If executive who remember the got pruch cards and Dec VAXes) observed that each new technology (mainframes, minicompating, NC) progressed and Dec VAXes) observed that each eve technology (mainframes, minicompating, NC) progressed for the property of the prop

IT purchases will re-exert itself. We termed this group "The Pendulum Will Swing Backers." Another group, the "Power to the People"

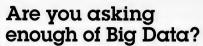
Contingent, sees evidence of evolutionary trends that will keep us from repeating that history. They point out that we've seen the focal point of buying shift from the IT department to the line of business, and they are not freaked out that today buying gower seems to be moving to the individual.

Why, they wonder, does IT want to be in the technology provisioning business? Do we want to be "the store" that all departments come to for their digital kits? As Barbra Cooper, the recently retired CIO at Toyota Motor Sales USA, remarked, peing a "device Santa Claus" is not truly strategic. IT can keep on fighting to be included in every purchase decision in the company, she said, but it will turn out to be a fight without end. The better long-term strategy (that is, looking out five years) is to educate business people about how to buy technology. As Cooper reasoned, "The people coming into the company are tech-savvy. They have a corporate purchase card. It is nothing for some guy in marketing to get himself a piece of the cloud. As a CIO, you don't have a clue until it is too late."

The danger is that most business people are not educated enough to buy non-toxically. That's why Cooper stresses education, with a set of rules: "Here is the sandbox. Here are the rules you have to play by, And when you go outside those rules, here are the consequence."

I would love to hear your thoughts. +

Theretoes A. Many is author of The New Know. Innovation Powered by Analytics and executive director of the IT Leadership Academy at Florida State College in Jacksonville. You can contact him at thorntonamay@aol.com or follow him on Twitter



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